

Work Order ID 151770

Friday, October 07, 2016 2:34:30 PM

151770

Page 1

Item ID: D4060-1 Accept ***N900040100*** Setup Start ***NS1***
Revision ID: Stop ***NS2***
Item Name: Ski Clamp, Top
Start Date: 10/4/2016 Start Qty: 36.00 ***36*** Cust Item ID:
Required Date: 10/7/2016 Req'd Qty: 36.00 ***36*** Customer:

Reference:

Approvals: Process Plan:  Date: 10-10-11 Tooling: Date: Run Start ***NR1***
QC: Date: SPC (Y/N): Date: Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
Draw Nbr	Revision Nbr								
D4060	B								PR 10/10/11
100		0.00							
100						36			
Waterjet	Memo	0.30							
FLOW CNC Waterjet	1-Cut as per Dwg Dwg Rev: <u>3</u> Prog Rev: <u>3</u> 2-Deburr if necessary								
110	QC2- Inspect parts off machine FAI/FAIB	0.00							
110						36		PR 10/10/12	
QC	Memo	0.06							
Quality Control									
120	QC8- Inspect parts - second check	0.00							
120						36			
QC	Memo	0.12							
Quality Control									

DAS
38
9-88
OCT 12 2016

DQA: _____ Date: _____

WORK ORDER NON-CONFORMANCE / UPDATE



QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval Completed By Lead hand / Supervisor Approval Verification QC / QA Coordinator Approval		
Description Work Order Deviation				Disposition					
Root Cause Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐		FAULT CATEGORY Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐ Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Mislabeled ☐ Fit/Function ☐ Misaligned/off center ☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐							
		OTHER :							

Friday, October 07, 2016 2:34:30 PM

Page 2

[illegible]

DQA: _____ Date: _____

WORK ORDER NON-CONFORMANCE / UPDATE



QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐																																																													
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Environment ☐	No Re-verification ☐	Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐	Design ☐	Operator ☐	Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐	Doc/Data ☐	Offset/Setup ☐	Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☐	Equip/Tooling ☐	Supplier ☐	Cracks ☐	Broken/Damage/Defect ☐	Weld ☐	Part Incorrect ☐	Handling/Pre ☐	Training ☐	Crimp/Kink/Ripple/Wave ☐	Inspection Incomplete/Unqualified ☐	Wrong Stock Pulled ☐	Part Lost/Missing ☐	Material ☐	Use for Testing ☐	Cuffs ☐	Contamination ☐	Out of Sequence ☐	Part Moved ☐	Internal Transport ☐	Poor Information ☐	Crushing ☐	Countersink ☐	Off-set ☐	Drawing ☐	Tribal Knowledge ☐	Rushing ☐	Heat Treat ☐	Cut Too Short ☐	Mislabeled ☐	Finish ☐	LOA ☐	Product Improvement ☐	Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐	Fit/Function ☐	Misread ☐	Substation ☐	Process Improvement ☐	Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐	Past Expiry Date ☐	Manufacturing Process ☐	OTHER :			
Misidentified ☐	Past Due ☐																																																																

Work Order ID 151770

Friday, October 07, 2016 2:34:30 PM

151770

Page 3

Item ID: D4060-1

Accept

N900040100

Setup Start

NS1

Revision ID:

Stop

NS2

Item Name: Ski Clamp, Top

Start Date: 10/4/2016 Start Qty: 36.00

36

Cust Item ID:

Required Date: 10/7/2016 Req'd Qty: 36.00

36

Customer:

Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

Run Start

NR1

QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Stop

NR2Sequence ID/
Work Center IDOperation
DescriptionSet Up/
Run Hours

Tool ID

Tool #

Plan
CodeAccept
QtyReject
QtyReject
NumberInsp.
Stamp

160

QC21- Final Inspection - Work Order Release

0.00

160

QC

Memo

0.60

Quality Control

DAS
21
9-89

OCT 18 2016

DAS
21
9-89

OCT 17 2016

DQA: _____ Date: _____

WORK ORDER NON-CONFORMANCE / UPDATE



QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐																																																													
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Misidentified ☐	Past Due ☐																																																																

Picklist Print

Friday, October 07, 2016 2:34:30 PM

Work Order ID: 151770
Parent Item: D4060-1
Parent Item Name: Ski Clamp, Top

151770
D4060-1

Start Date: 10/4/2016
Start Qty: 36.00
Required Date: 10/7/2016
Required Qty: 36.00

Comments: IPP Rev:A new issue DD 10.02.16 verified by:EC

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
M304S14GA		Purchased	No			100	sf	15.4000	0.085	3.221053			

M304S14GA
304SS sheet .080

** PR 10/10/12

Location	Loc Qty	Loc Code
MAT019	15.4	
M129972	5.7	
M135061	3.8	
M135689	5.9	3.5

DQA: _____ Date: _____

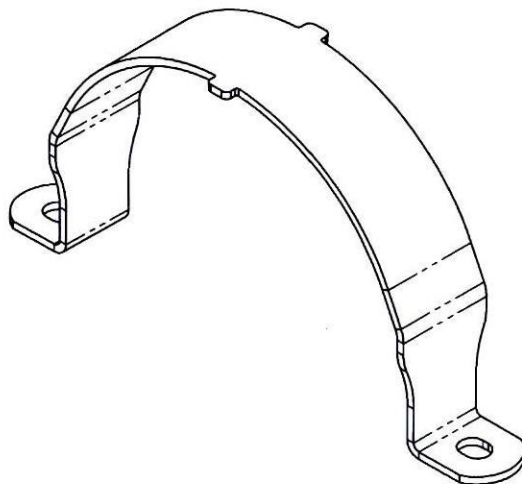
WORK ORDER NON-CONFORMANCE / UPDATE



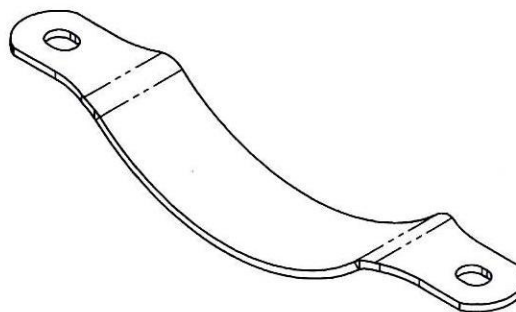
QA Closed: _____ Date: _____

Work Order update only ☐

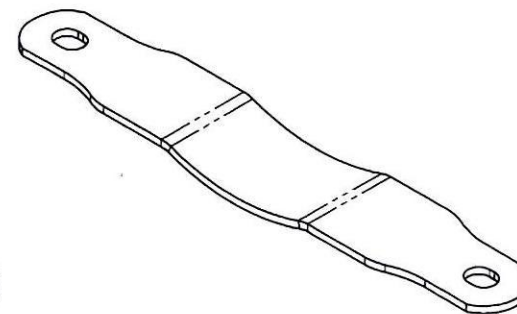
Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
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		OTHER : ☐							



D4060-1 412 SKI CLAMP, TOP



D4060-3 412 SKI CLAMP, BOTTOM



D4060-5 412 SKI CLAMP, AFT

SHOP COPY
RETURN TO
ENGINEERING
UNCONTROLLED COPY
SUBJECT TO AMENDMENT
WITHOUT NOTICE
WORK ORDER
NO. 151770
16-10-11

RELEASED
2015-06-03

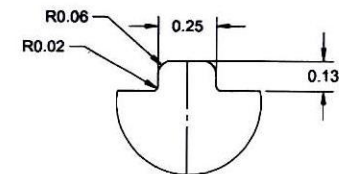
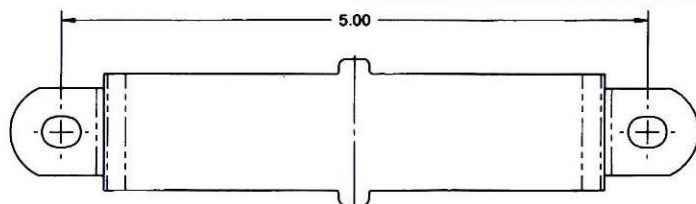
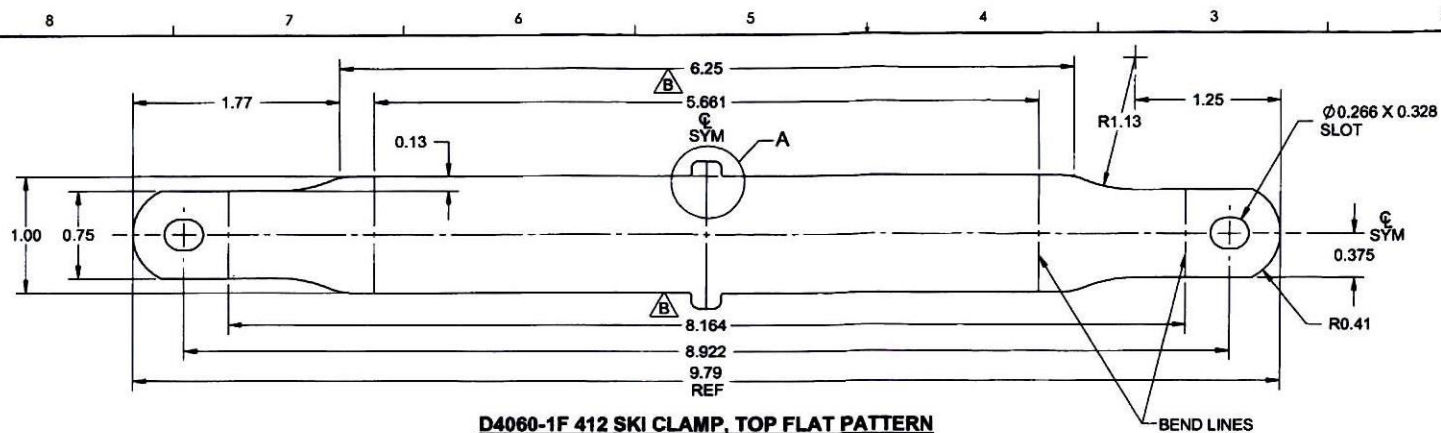
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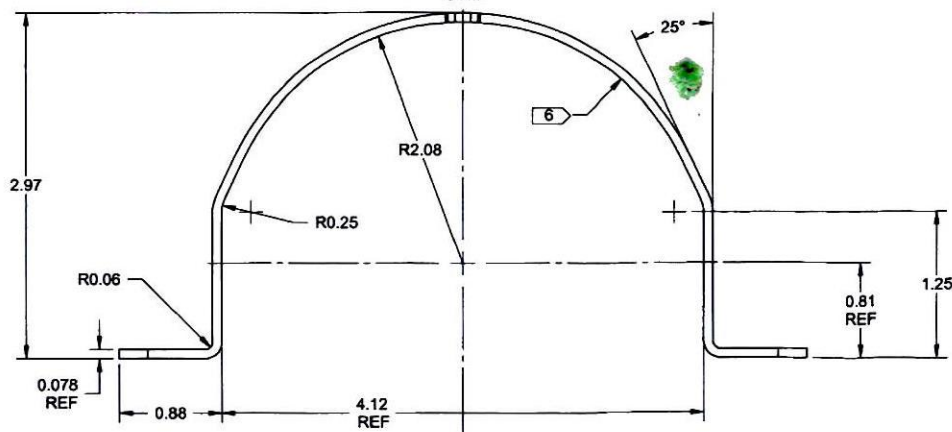
- 1) MATERIAL: AISI 304/316 STAINLESS STEEL SHEET ANNEALED 2B FINISH, 14 GAUGE (0.078 THICK)
PER AMS 5513 (304) OR 5524 (316) OR ASTM A240 OR ASME SA240
REF. DART SPEC. M304S14GA
- 2) FINISH: NONE
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: IDENTIFY WITH DART P/N "D4060-X" USING FINE POINT PERMANENT INK MARKER
- 7) WEIGHT: D4060-1 = 0.20 lbs, D4060-3/-5 = 0.12 lbs

B	ADD CUSHION RETENTION DETAILS TO -1 CLAMP. REASON: PAR 14-366, PAR 14-331, NCR 14-3521	VS	15.05.14
A	NEW ISSUE	MB	10.03.31
REV.	DESCRIPTION	BY	DATE
DESIGN	VS	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
DRAWN	VS		
CHECKED	RF	DRAWING NO.	REV. B
MFG. APPR.	DD	D4060	SHEET 1 OF 4
APPROVED	HS	TITLE	SCALE
DE APPR.	DS	412 SKI CLAMP	NTS
DATE	15.05.14	COPYRIGHT © 2010 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL, AND IS SUPPLIED ON THE UNDERSTANDING THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD	

APPROVED

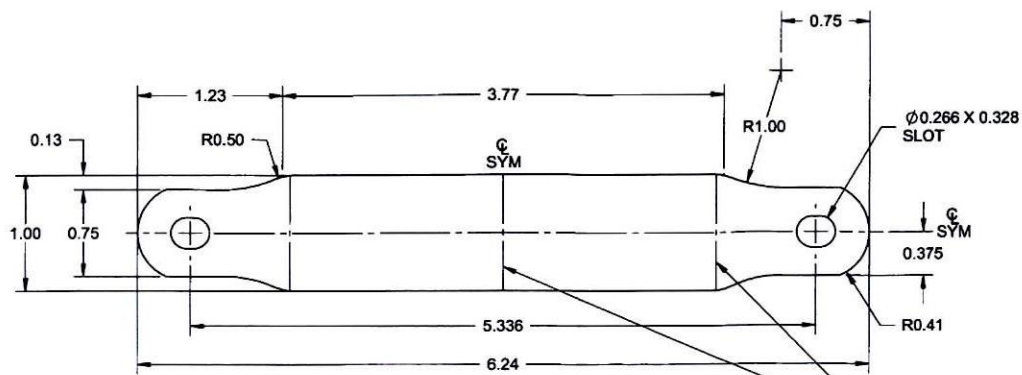


DETAIL A
2 PL

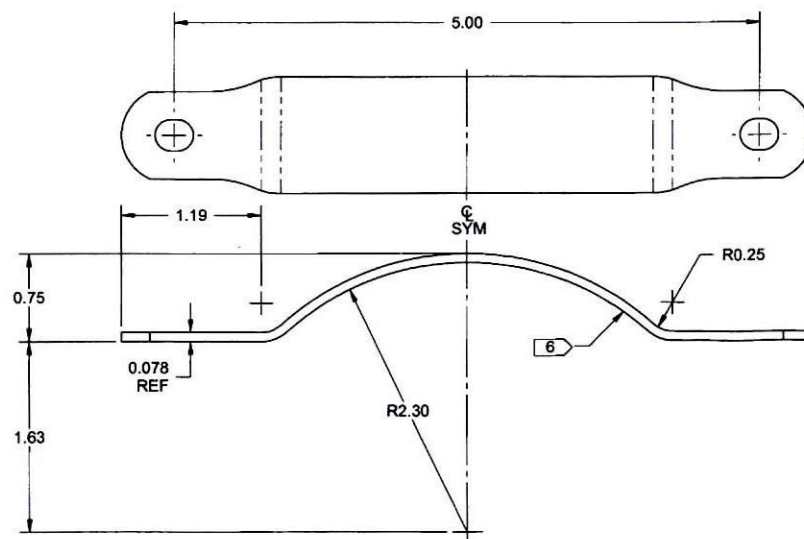


RELEASED
2015-06-03

APPROVED	DESIGN	VS	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
	DRAWN	VS		
	CHECKED	RF	DRAWING NO.	REV. B
	MFG. APPR.	DD	D4060	SHEET 2 OF 4
	APPROVED	HS	TITLE	SCALE
	DE APPR.	DS	412 SKI CLAMP	NTS
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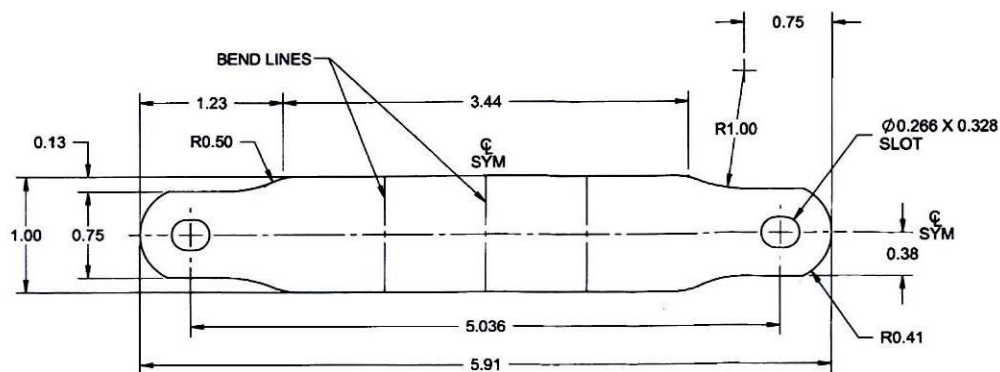
D4060-3F 412 SKI CLAMP, BOTTOM FLAT PATTERN



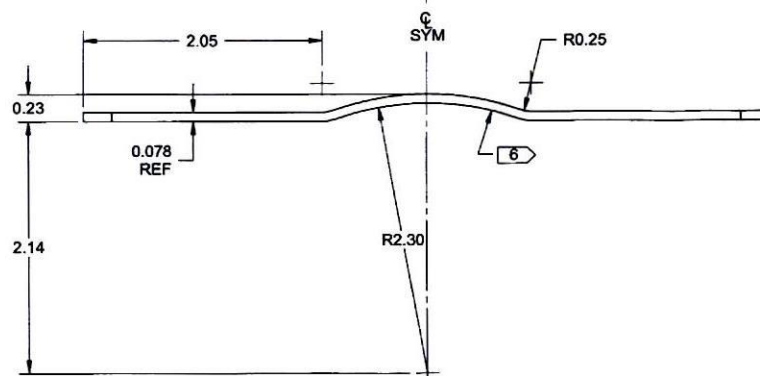
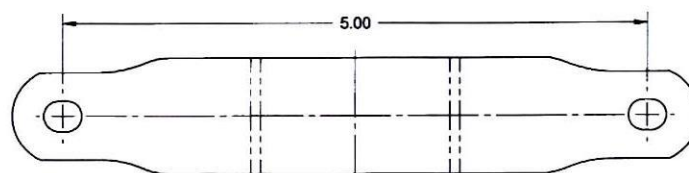
D4060-3 412 SKI CLAMP, BOTTOM
MAKE FROM D4060-3F

RELEASED
2015-06-03
en

APPROVED	DESIGN	VS	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
	DRAWN	VS		
	CHECKED	RF	DRAWING NO.	REV. B
	MFG. APPR.	DD	D4060	SHEET 3 OF 4
	APPROVED	HS	TITLE	SCALE
	DE APPR.	DS	412 SKI CLAMP	NTS
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D4060-5F 412 SKI CLAMP, AFT FLAT PATTERN



D4060-5 412 SKI CLAMP, AFT
MAKE FROM D4060-5F

RELEASED
2015-06-03

APPROVED	DESIGN	VS	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
	DRAWN	VS		
	CHECKED	RF	DRAWING NO. D4060	REV. B SHEET 4 OF 4
	MFG. APPR.	DD	TITLE 412 SKI CLAMP	SCALE NTS
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	DE APPR.	DS		
		DATE	15.05.14	